Determination of Rangeland Health

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these Standards.

Field assessment worksheets and other available data which evaluate the local indicators, were completed for this allotment. Based on the assessments, it is my determination that the Public Lands within theCooper Pyeatt Ranch Allotment #65019 meet the Upland Sites Standard and (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard. There are no Public Land riparian areas on this allotment, therefore this Standard will not addressed.

/s/ T. R. KREAGER	08/28/2003
Assistant Field Manager	Date

Standards of Public Land Health
Evaluation of 65019 COOPER PYEATT RANCH Allotment
[04/22/2003]

The Roswell Field Office conducted rangeland health assessments at three study sites within the COOPER PYEATT RANCH allotment #65019. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65019-BIG-D047 (*)	X	*		X	*		N/A		
65019-SOUTH-D046 (*)	X			X	*		N/A		
65019-WEST-D045 (*)	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the Cooper-Pyeatt Ranch allotment, #65019; 10 of these assessed soil/site stability, 11 assessed hydrologic functions and 13 assessed biotic integrity. These qualitative assessments along with quantitative information from long-term monitoring studies on three study areas on the allotment were utilized to assess the rangeland health of the public land within the allotment. These quantitative evaluations were performed by the Roswell Field office staff starting in the early 1980's. These included ground and vegetative cover and composition, production, frequency, and ecological condition as calculated from these collections which have been scheduled approximately every 5 years.

Drought has had an impact on these sites over the last few years. A total of three sites were evaluated, corresponding to the 3 trend plot locations. Big, West and South Pastures were assessed for Upland and Biotic standards. Big pasture rated 11 indicators in the Moderate category. Four of these are soil attributes, and nine for hydrological function and/or a combination of both. Rills, water flow patterns,pedestals and/or terracettes, gullies, litter movement, soil surface resistance to erosion, soil surface loss or degradation, plant community composition and distribution and litter amount all rated in the Moderate category. This suggests an influence from mesquite (Prosopis glandulosa),

which is common throughout the site. This also holds for the soil site stability attributes. See site notes for an explanation of brush encroachment. Bare ground rated in the Moderate to Extreme where the percentage exceeded the upper expected range of the Ecological Site Description (ESD). The soil association Pajarito-Bluepoint (PBB) is an eroded soil. Generally, these soils have a higher percentage of bareground as oppossed to other soils that are included in this ecological site Sandy SD-3 classification. Gulleying and hummocks are common with this soil, particularly in the Bluepoint. These soils are excessively drained and have a low water-holding capacity. This coupled with drought conditions has contributed to plant decadence, rating in the Moderate category as evidenced by the loss of many of the dropseed (Sporobolus spp.), and the appearance of more bareground. Overall, shrubs dominate the site and many are desirable for wildlife species; however mesquite seems the most dominant as indicated by a Moderate to Extreme rating in the invasive plants indicator. Wind-scoured, blowouts and/or deposition areas are most common on this ecosite, and was given a rating of Moderate to Extreme. The Structural/functional groups rated in the Moderate to Extreme category as the diversity of dominant groups has been reduced. The biotic indicator not previously mentioned, rating in the Moderate category at 50% of potential is annual production.

West pasture, a SD-3 loamy ecosite, and a Hollomex-Reeves-Milner soil phase indicated all indicators with the exception of 2, whether soil/site stability, hydrologic function or biotic integrity, rated in the None to Slight or Slight to Moderate category. The only indicators of concern are soil surface resistance to erosion rating in the Moderate category with some soil resistance reduced in at least half the canopies. The other indicator of concern is the invasive plants rating as Moderate to Extreme. This mainly due to the presence of mesquite and prickly pear (Opuntia spp.), which is common. Some light grazing has occurred on this site however.

South pasture's evaluation indicated the soil/hydrologic attributes, rating in the Moderate category. Bareground is approaching the upper end for the ESD, soil surface resistance to erosion has been reduced throughout the site, as has soil surface loss or degradation in the plant interspaces and organic matter showing a reduction. Again the presence of mesquite has altered the soil somewhat and the amount of bareground. Biotic indicators; structural/functional groups and annual production have rated in the Moderate category with one or more dominant groups such as black grama (Bouteloua eriopoda) and blue grama (Bouteloua gracilis) being replaced by threeawn (Aristida spp.) and burrograss (Scleropogon brevifolius). Annual production at present is approximately 50 to 60% of potential. Mesquite, the primary invasive plant species is common throughout the site and rated as Moderate to Extreme. Please refer to recommendations for further explanation for future management practices in reference to brush encroachment. All other indicators are presently rating in the None to Slight to Slight to Moderate category.

It is the professional opinion of the Assessment Team that this allotment meets the standards for upland and biotic. The Riparian standard does not apply to this allotment and was not addressed. Further monitoring of the pastures with brush encroachment maybe be warranted, to possibly recommend future treatments and improve the potential of these areas and of the allotment.

The (*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Bare Ground
- Wind-scoured, Blowouts, and/or Deposition Areas
- Functional/Structural Groups
- Invasive Plants

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

Recommendations: For the areas where mesquite (Prosopis glandulosa) has encroached and is common throughout the site, a vegetation treatment to remove/reduce brush can be applied where a desirable plant community would be viable. Establishing a preferred mosaic of different community types could potentially enhance the environment for wildlife and livestock as well. The natural progression of mesquite has apparently made it's way to all three sites, and future more frequent monitoring is required.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65019-BIG-D047			
Legal Land Desc	SWNW 32 0060S 0270E Meridian 23	Acreage	2981
Ecosite		Photo Taken	Y
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/SPAIN	Observation Date	04/25/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	BPB	Soil Taxon Name	BERINO
Texture Class	NM644 SCL	Soil Phase	BERINO-BLUEPOINT
Texture Modifier	NM644 SANDY CLAY LOAM,HU		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.74	NOAA Growing Season Precipitation	8.4
NOAA Avg Annual Precipitation	13.16	NOAA Avg Growing Season Precipitation	10.83
Disturbances and Animal Use:	Cattle currently grazing in the pasture. Road along the powerline had been bladed recently		

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills			X		
Comments:						
S H	Water Flow Patterns			X		
Comments:						
S H	Pedestals and/or Terracettes			X		
Comments:						
S H	Bare Ground		X			

Comments:						
S H	Gullies			X		
Comments:	Some recent headcuts at the tops of gullies-most gullying is limited to natural drainages. Most bottoms and sides appear stable.					
S	Wind-scoured, Blowouts, and/or Deposition Areas		X			
Comments:	Directed more toward the coppice dunes to the north of this site					
H	Litter Movement			X		
Comments:						
S H B	Soil Surface Resistance to Erosion			X		
Comments:						
S H B	Soil Surface Loss or Degradation			X		
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups		X			
Comments:						
B	Plant Mortality/Decadence			X		
Comments:	Lower end of moderate					
H B	Litter Amount			X		
Comments:						
B	Annual Production			X		
Comments:						
B	Invasive Plants		X			
Comments:	Mesquite					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	

Comments:	More of a physical crust. Biologic crust was observe in the center of a large clump of decadent giant sacaton					
B	Wildlife Habitat				X	
Comments:	Diverse wildlife habitat due to location on landscape. Between Haystack Mtn escarpment and Pecos Valley. Bosque Draw is the major drainage in the pasture, several other minor drainages. Mixture of grassland and shrubland habitat. Much of the landscape invaded by mesquite. Much browse species along escarpment. Oil and gas development is increasing					
B	Wildlife Populations				X	
Comments:	No specific wildlife information. Species of concern include mule deer, upland game birds, and a wide variety of terrestrial nongame species.					
B	Special Status Species Habitat					X
Comments:	None know to occur.					
B	Special Status Species Populations					X
Comments:	None know to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	2	6	1	1
H	Hydrologic	0	1	9	0	1
B	Biotic	0	2	5	3	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be sued when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not	May	Meets

		Meet	Need More Info	
Soil	Meets but in the lower range of the standard. Six soil indicators rated in the Moderate category, which may need to be looked at further.	2	6	2
Hydrologic	Meets but in the lower range of the standard. Nine hydrological indicators rated in the Moderate cateory.	1	9	1
Biotic		2	5	6
Site Notes: Bareground, Functional/Structural groups, Invasive Plants and Wind-scoured blowouts all rated at the Moderate to Extreme category. There appears to be a steady encroachment of mesquite (Prosopis glandulosa) on the site. The SD-3 Sandy ecosite with a Berino-Bluepoint soil phase lends itself to brush encroachment. The coppice dune formation is a symptom of mesquite invasion. This coupled with drought conditions has augmented the situation in the pasture.				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65019-SOUTH-D046			
Legal Land Desc	SENW 31 0060S 0270E Meridian 23	Acreage	590
Ecosite		Photo Taken	Y
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/SPAIN	Observation Date	04/25/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HMA	Soil Taxon Name	HOLLOMEX
Texture Class	NM644 L	Soil Phase	HOLLOMEX-REEVES-MILNER
Texture Modifier	NM644 LOAM,DRY		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.74	NOAA Growing Season Precipitation	8.4
NOAA Avg Annual Precipitation	13.16	NOAA Avg Growing Season Precipitation	10.83
Disturbances and Animal Use:			

Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						

S H	Bare Ground			X		
Comments:						
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion			X		
Comments:						
S H B	Soil Surface Loss or Degradation			X		
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Toward slight-moderate					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Toward moderate					
B	Annual Production			X		
Comments:						
B	Invasive Plants		X			
Comments:	Mesquite					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	

Comments:	Physical crust					
B	Wildlife Habitat				X	
Comments:	A grassland habitat invaded by mesquite.					
B	Wildlife Populations				X	
Comments:	No specific wildlife information. Primary species of concern is mule deer, upland game birds and a variety of terrestrial nongame species.					
B	Special Status Species Habitat					X
Comments:	None know to occur.					
B	Special Status Species Populations					X
Comments:	None know to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	3	3	4
H	Hydrologic	0	0	3	5	3
B	Biotic	0	1	4	3	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be sued when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	3	7

Hydrologic		0	3	8
Biotic		1	4	8
Site Notes:				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65019-WEST-D045			
Legal Land Desc	NESE 36 0060S 0260E Meridian 23	Acreage	93
Ecosite		Photo Taken	Y
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/SPAIN	Observation Date	04/25/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HMA	Soil Taxon Name	HOLLOMEX
Texture Class	NM644 L	Soil Phase	HOLLOMEX-REEVES-MILNER
Texture Modifier	NM644 LOAM,DRY		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.74	NOAA Growing Season Precipitation	8.4
NOAA Avg Annual Precipitation	13.16	NOAA Avg Growing Season Precipitation	10.83
Disturbances and Animal Use:			

Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:	A grassland habitat invaded by mesquite.					
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						

S H	Bare Ground				X	
Comments:						
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion			X		
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants		X			
Comments:	Mesquite and prickly pear					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X

Comments:						
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:	No specific wildlife information. Primary species of concern are mule deer, upland game birds and a variety on terrestrial nongame wildlife species.					
B	Special Status Species Habitat					X
Comments:	None know to occur.					
B	Special Status Species Populations					X
Comments:	None know to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

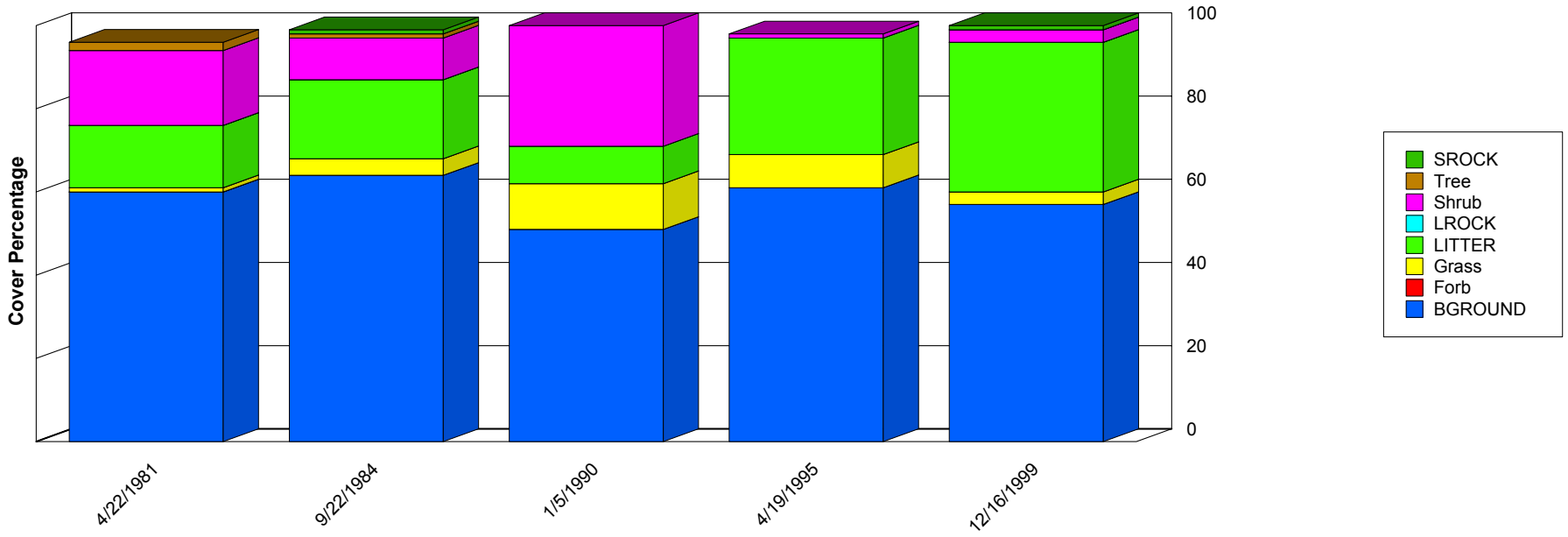
Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	4	5
H	Hydrologic	0	0	1	7	3
B	Biotic	0	1	1	6	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be sued when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9

Hydrologic		0	1	10
Biotic		1	1	11
Site Notes:				

Ground Cover Trends



	4/22/1981	9/22/1984	1/5/1990	4/19/1995	12/16/1999
BGROUND	60.00	64.00	51.00	61.00	57.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	1.00	4.00	11.00	8.00	3.00
LITTER	15.00	19.00	9.00	28.00	36.00
LROCK	0.00	0.00	0.00	0.00	0.00
Shrub	18.00	10.00	29.00	1.00	3.00
SROCK	0.00	1.00	0.00	0.00	1.00
Tree	2.00	1.00	0.00	0.00	0.00
Total	96.00	99.00	100.00	98.00	100.00

Report Parameters

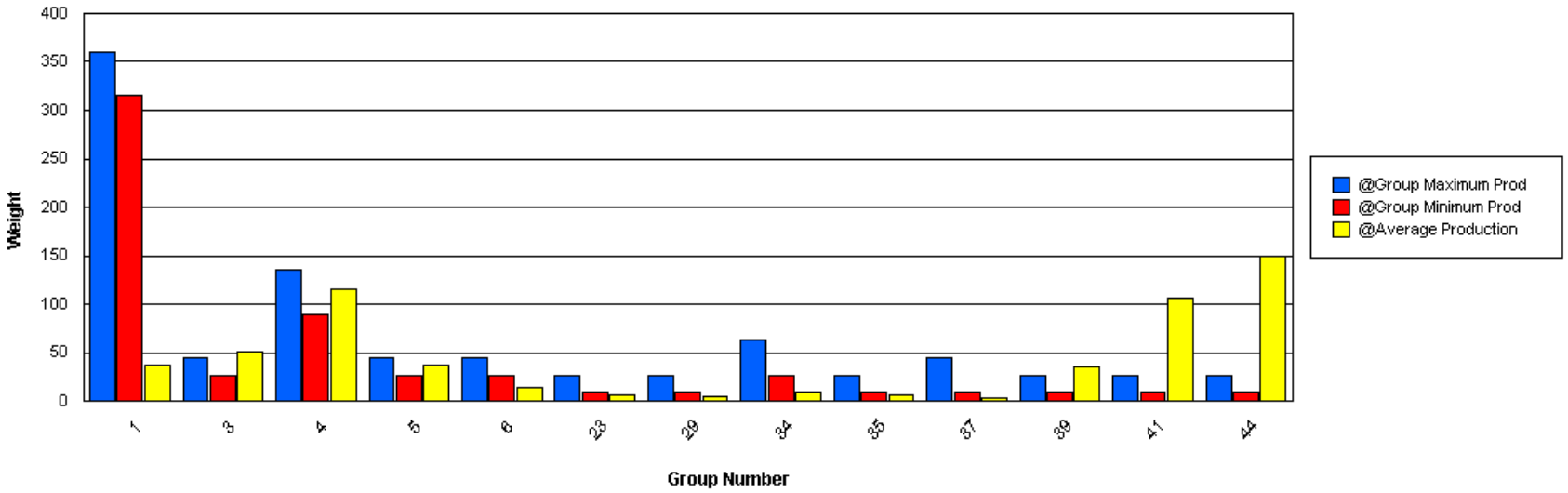
SITE NAME LIKE	65019-BIG-D047
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000

Functional / Structural Groups

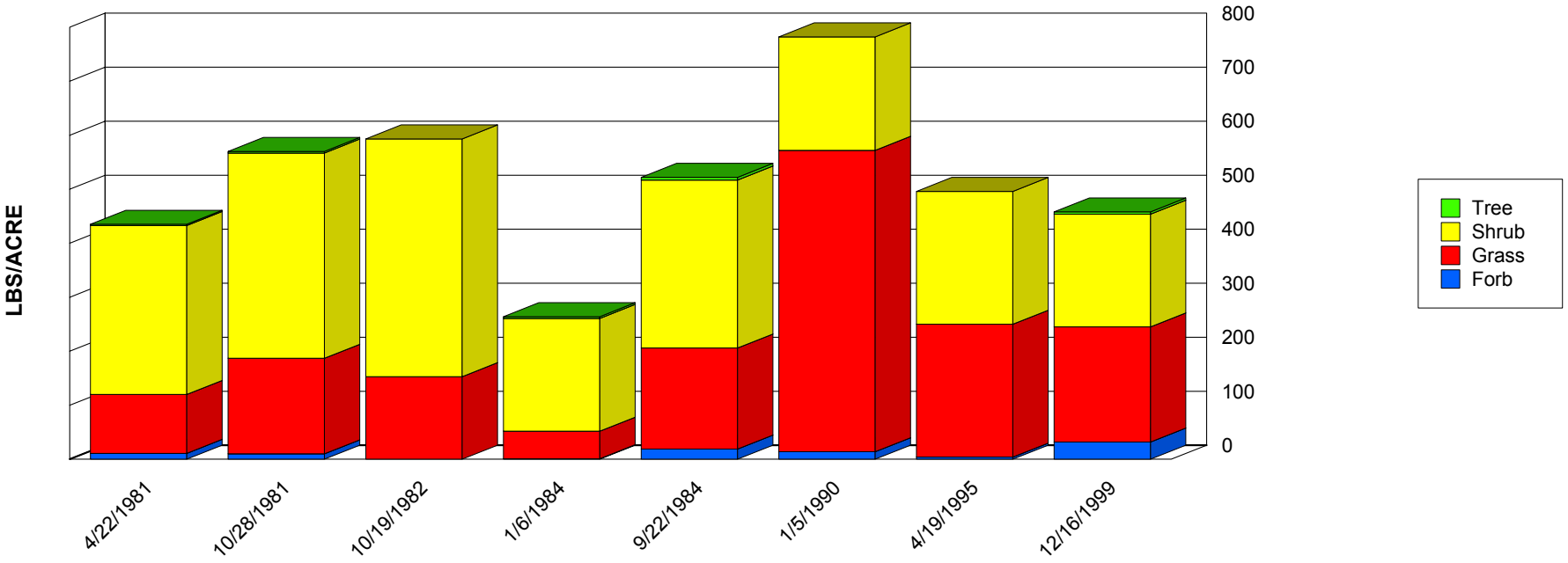
Report Parameters	
SITE NAME LIKE	65019-BIG-D047
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY004NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	315	360	2.00	143.00	37.00	49.82
3	Grass	MUPO2	27	45	17.00	96.00	51.38	28.03
4	Grass	SPCO4	90	135	0.00	16.00	8.00	8.00
4	Grass	SPCR	90	135	5.00	280.00	84.57	89.78
4	Grass	SPFL2	90	135	0.00	44.00	23.60	17.82
5	Grass	ARIST	27	45	1.00	82.00	37.83	24.87
6	Grass	SEMA5	27	45	2.00	32.00	13.60	11.13
9	Grass	PAOB	9	27	0.00	4.00	1.33	1.89
15	Grass	BOBA2	9	45	0.00	1.00	0.50	0.50
23	Grass	MUAR2	9	27	6.00	7.00	6.50	0.50
29	Grass	ERPU8	9	27	2.00	7.00	4.25	1.92
30	Forb	CROTO	27	63	0.00	2.00	1.00	0.82
34	Forb	AAFF	27	63	2.00	25.00	10.33	8.34
35	Forb	DYPE2	9	27	4.00	6.00	5.00	1.00
35	Forb	SOEL	9	27	0.00	8.00	2.20	2.93
37	Tree	YUEL	9	45	2.00	5.00	3.40	1.02
39	Shrub	ATCA2	9	27	2.00	74.00	35.14	25.40
41	Shrub	GUSA2	9	27	41.00	173.00	106.25	47.82
44	Shrub	PRGL2	9	27	36.00	270.00	149.13	86.96

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

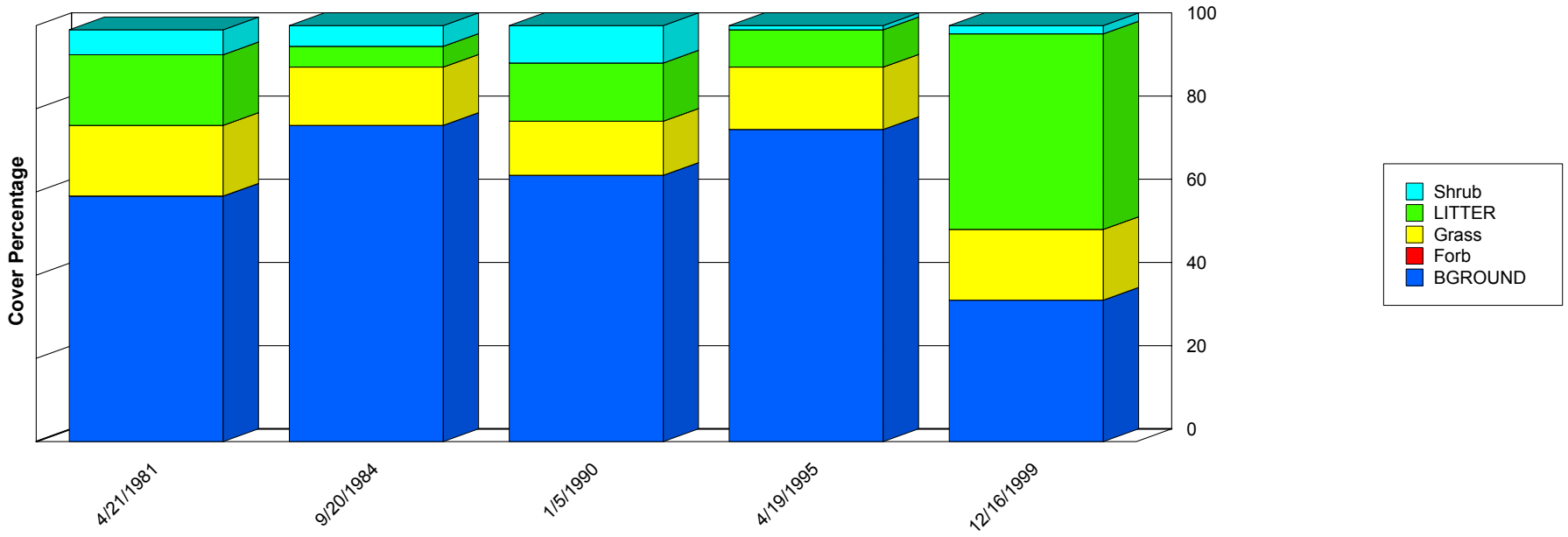


	4/22/1981	10/28/1981	10/19/1982	1/6/1984	9/22/1984	1/5/1990	4/19/1995	12/16/1999
Forb	**11.00**	**10.00**	**0.00**	**1.00**	**19.00**	**14.00**	**4.00**	**32.00**
Grass	**109.00**	**177.00**	**153.00**	**51.00**	**187.00**	**558.00**	**246.00**	**213.00**
Shrub	**313.00**	**380.00**	**440.00**	**209.00**	**311.00**	**210.00**	**246.00**	**209.00**
Tree	**2.00**	**3.00**	**0.00**	**3.00**	**5.00**	**0.00**	**0.00**	**4.00**
Total	**435.00**	**570.00**	**593.00**	**264.00**	**522.00**	**782.00**	**496.00**	**458.00**

Report Parameters

SITE NAME LIKE	65019-BIG-D047
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000

Ground Cover Trends



	4/21/1981	9/20/1984	1/5/1990	4/19/1995	12/16/1999
BGROUND	59.00	76.00	64.00	75.00	34.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	17.00	14.00	13.00	15.00	17.00
LITTER	17.00	5.00	14.00	9.00	47.00
Shrub	6.00	5.00	9.00	1.00	2.00
Total	99.00	100.00	100.00	100.00	100.00

Report Parameters

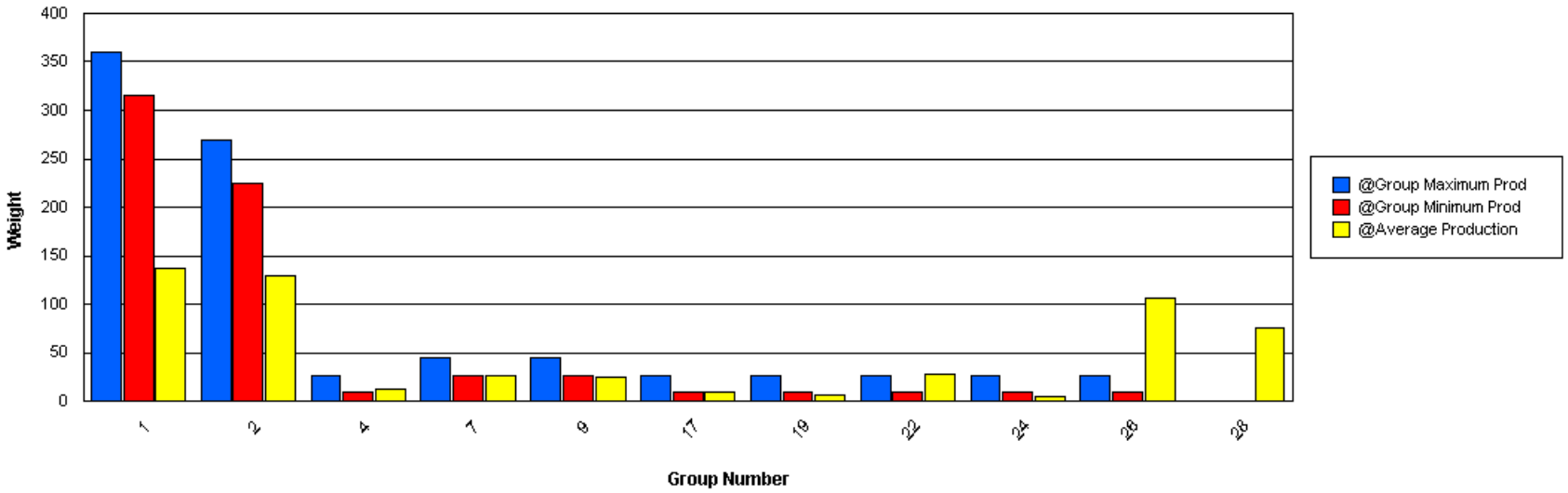
SITE NAME LIKE	65019-SOUTH-D046
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000

Functional / Structural Groups

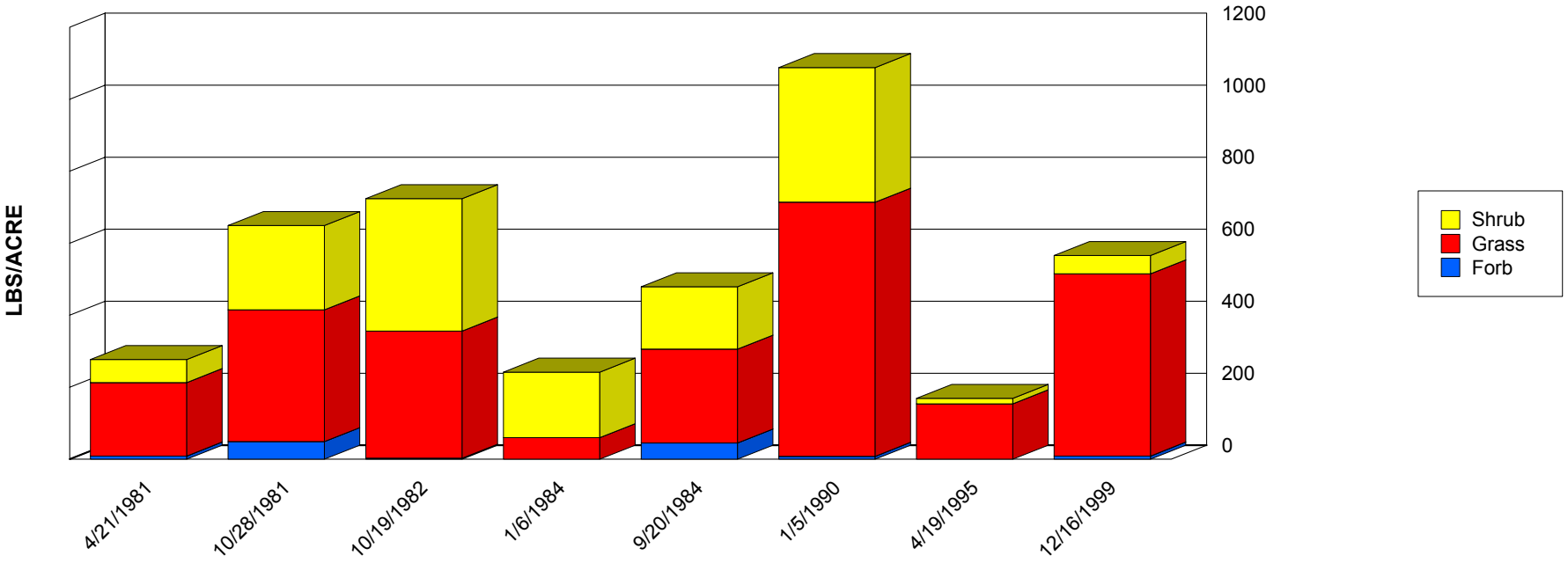
Report Parameters	
SITE NAME LIKE	65019-SOUTH-D046
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY007NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	HIMU2	315	360	27.00	206.00	100.50	55.90
1	Grass	SCBR2	315	360	3.00	77.00	37.13	30.41
2	Grass	BOER4	225	270	17.00	343.00	113.88	104.62
2	Grass	BOGR2	225	270	5.00	27.00	15.67	7.74
4	Grass	MUPO2	9	27	8.00	22.00	13.00	5.74
7	Grass	ARIST	27	45	0.00	1.00	0.50	0.50
7	Grass	SPCR	27	45	1.00	137.00	25.25	43.23
9	Grass	MUAR	27	45	1.00	3.00	2.00	1.00
9	Grass	MUAR2	27	45	2.00	58.00	22.86	16.87
17	Grass	ERPU8	9	27	2.00	25.00	9.00	8.17
19	Forb	CROTO	9	27	0.00	1.00	0.50	0.50
19	Forb	LESQU	9	27	1.00	14.00	6.00	5.72
22	Forb	AAFF	9	27	2.00	21.00	8.00	6.40
22	Forb	XADR	9	27	0.00	39.00	19.50	19.50
24	Forb	LEER	9	27	0.00	12.00	4.67	5.25
24	Forb	MELE2	9	27	0.00	2.00	0.67	0.94
26	Shrub	GUSA2	9	27	1.00	274.00	106.75	94.80
28	Shrub	PRGL2	0	0	13.00	260.00	75.75	77.92

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

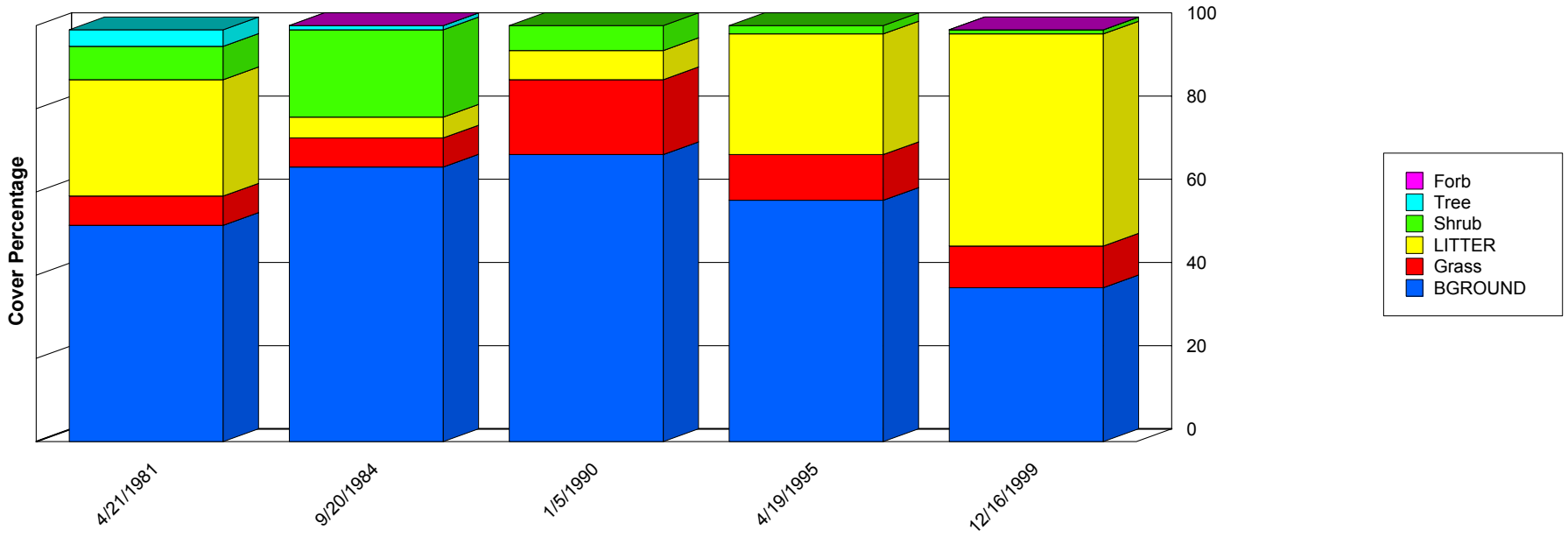


	4/21/1981	10/28/1981	10/19/1982	1/6/1984	9/20/1984	1/5/1990	4/19/1995	12/16/1999
Forb	**9.00**	**49.00**	**3.00**	**0.00**	**45.00**	**8.00**	**0.00**	**9.00**
Grass	**204.00**	**366.00**	**353.00**	**60.00**	**261.00**	**706.00**	**154.00**	**506.00**
Shrub	**64.00**	**234.00**	**368.00**	**182.00**	**173.00**	**374.00**	**15.00**	**51.00**
Total	**277.00**	**649.00**	**724.00**	**242.00**	**479.00**	**1,088.00**	**169.00**	**566.00**

Report Parameters

SITE NAME LIKE	65019-SOUTH-D046
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000

Ground Cover Trends



	4/21/1981	9/20/1984	1/5/1990	4/19/1995	12/16/1999
BGROUND	52.00	66.00	69.00	58.00	37.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	7.00	7.00	18.00	11.00	10.00
LITTER	28.00	5.00	7.00	29.00	51.00
Shrub	8.00	21.00	6.00	2.00	1.00
Tree	4.00	1.00	0.00	0.00	0.00
Total	99.00	100.00	100.00	100.00	99.00

Report Parameters

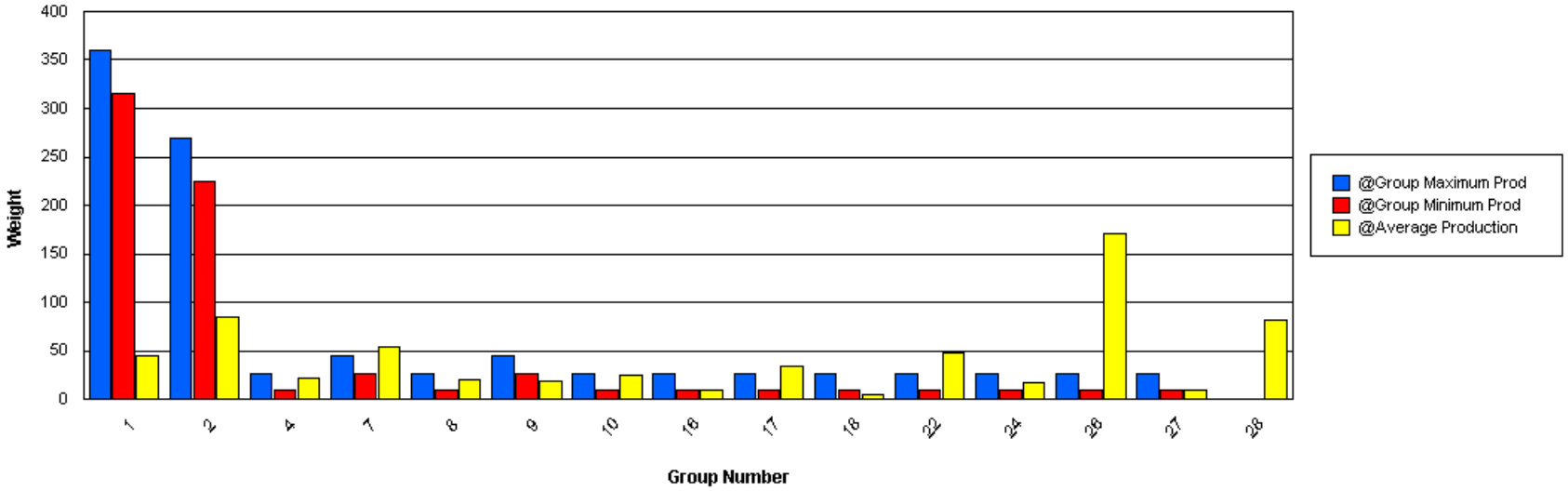
SITE NAME LIKE	65019-WEST-D045
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000

Functional / Structural Groups

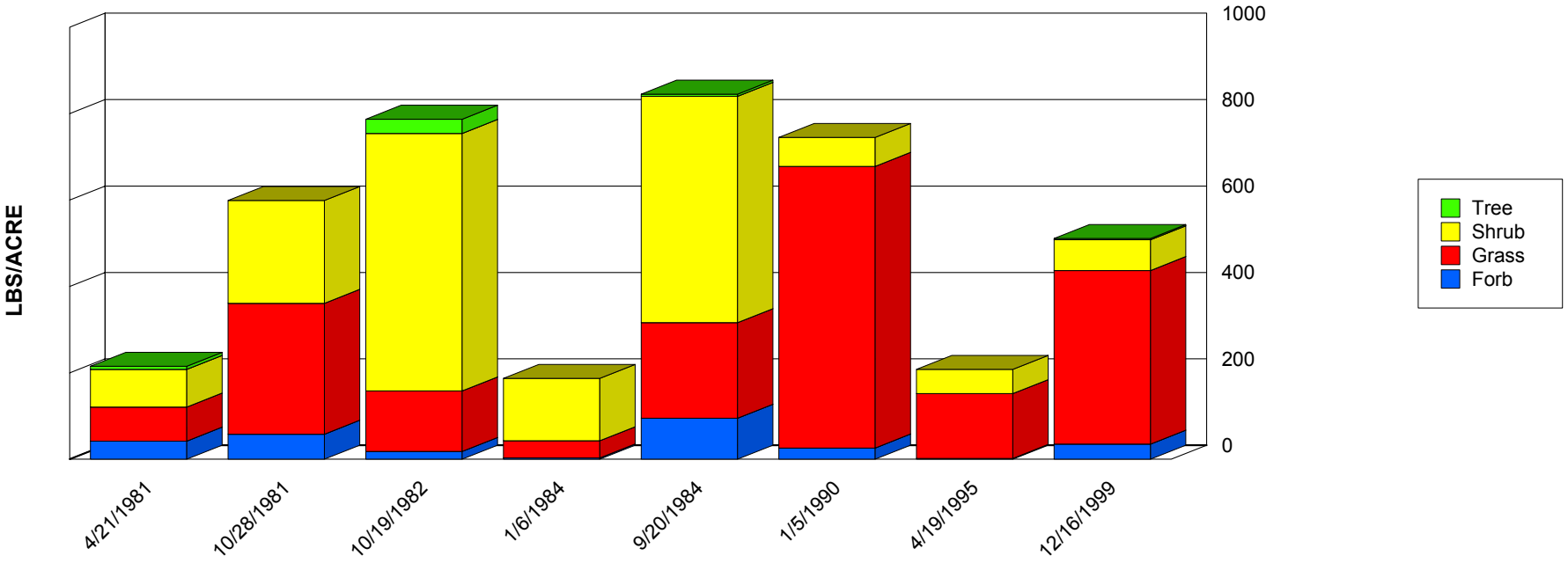
Report Parameters	
SITE NAME LIKE	65019-WEST-D045
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY007NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	HIMU2	315	360	4.00	107.00	31.29	34.22
1	Grass	SCBR2	315	360	2.00	49.00	13.67	16.54
2	Grass	BOER4	225	270	14.00	174.00	72.75	60.67
2	Grass	BOGR2	225	270	2.00	30.00	11.71	10.35
4	Grass	MUPO2	9	27	3.00	46.00	22.14	15.83
7	Grass	ARIST	27	45	0.00	25.00	7.50	10.21
7	Grass	SPCR	27	45	3.00	177.00	46.38	52.02
8	Grass	PAOB	9	27	2.00	44.00	19.83	18.00
9	Grass	MUAR	27	45	2.00	15.00	7.00	4.80
9	Grass	MUAR2	27	45	2.00	26.00	11.40	10.76
10	Grass	BOBR	9	27	18.00	36.00	25.33	7.72
11	Grass	ENDE	9	27	2.00	3.00	2.50	0.50
15	Grass	TRPI2	0	9	0.00	3.00	1.67	1.25
16	Grass	AAGG	9	27	1.00	27.00	10.33	11.81
17	Grass	ERPU8	9	27	1.00	52.00	19.50	19.88
17	Grass	SPFL2	9	27	0.00	6.00	3.33	2.49
17	Grass	SPNE	9	27	8.00	15.00	11.50	3.50
18	Forb	THME	9	27	0.00	9.00	4.50	4.50
19	Forb	CROTO	9	27	0.00	3.00	1.50	1.50
22	Forb	AAFF	9	27	1.00	32.00	14.25	11.24
22	Forb	CALYL	9	27	0.00	11.00	5.50	5.50
22	Forb	GAURA	9	27	0.00	7.00	3.50	3.50
22	Forb	MENTZ	9	27	0.00	15.00	7.50	7.50
22	Forb	PEPA2	9	27	0.00	33.00	16.50	16.50
24	Forb	EUPHO	9	27	0.00	0.00	0.00	0.00
24	Forb	NELI	9	27	0.00	14.00	7.00	7.00

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
24	Forb	PPFF	9	27	2.00	16.00	9.00	7.00
24	Forb	SOEL	9	27	1.00	2.00	1.67	0.47
26	Shrub	GUSA2	9	27	3.00	435.00	157.00	166.60
26	Shrub	OPUNT	9	27	0.00	3.00	1.33	1.25
26	Tree	YUEL	9	27	3.00	33.00	12.00	12.21
27	Shrub	COHI3	9	27	0.00	18.00	9.00	9.00
28	Shrub	PRGL2	0	0	29.00	218.00	82.25	53.72



Production Lbs/Acre Trends



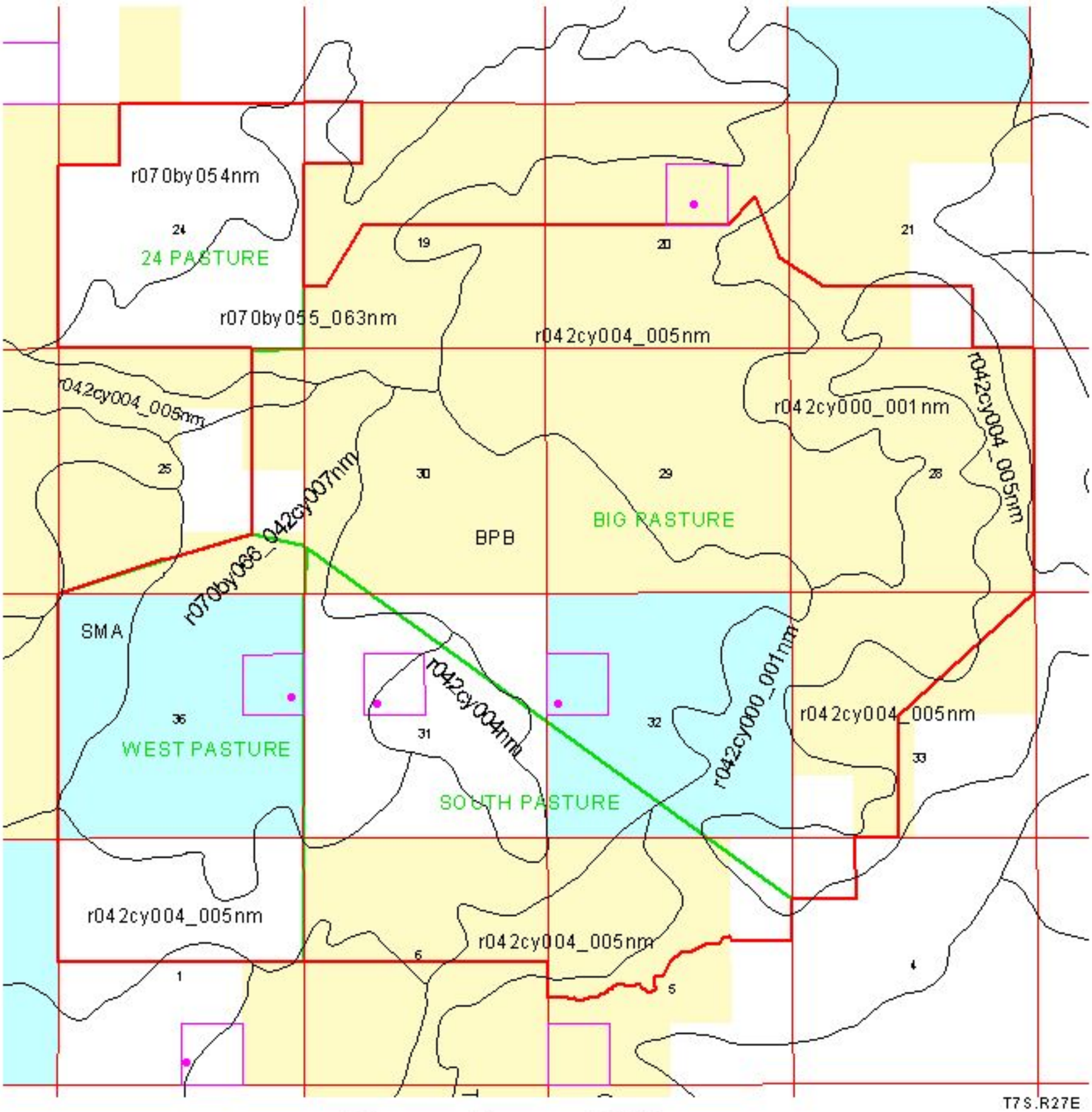
	4/21/1981	10/28/1981	10/19/1982	1/6/1984	9/20/1984	1/5/1990	4/19/1995	12/16/1999
Forb	**42.00**	**58.00**	**18.00**	**3.00**	**95.00**	**26.00**	**2.00**	**35.00**
Grass	**79.00**	**303.00**	**140.00**	**40.00**	**221.00**	**652.00**	**150.00**	**402.00**
Shrub	**87.00**	**238.00**	**596.00**	**144.00**	**524.00**	**67.00**	**56.00**	**71.00**
Tree	**7.00**	**0.00**	**33.00**	**0.00**	**5.00**	**0.00**	**0.00**	**3.00**
Total	**215.00**	**599.00**	**787.00**	**187.00**	**845.00**	**745.00**	**208.00**	**511.00**

Report Parameters

SITE NAME LIKE	65019-WEST-D045
ON/AFTER	10/01/1979
ON/BEFORE	09/30/2000

Rangeland Health Assessment
Ecological Sites

Allotment 65019



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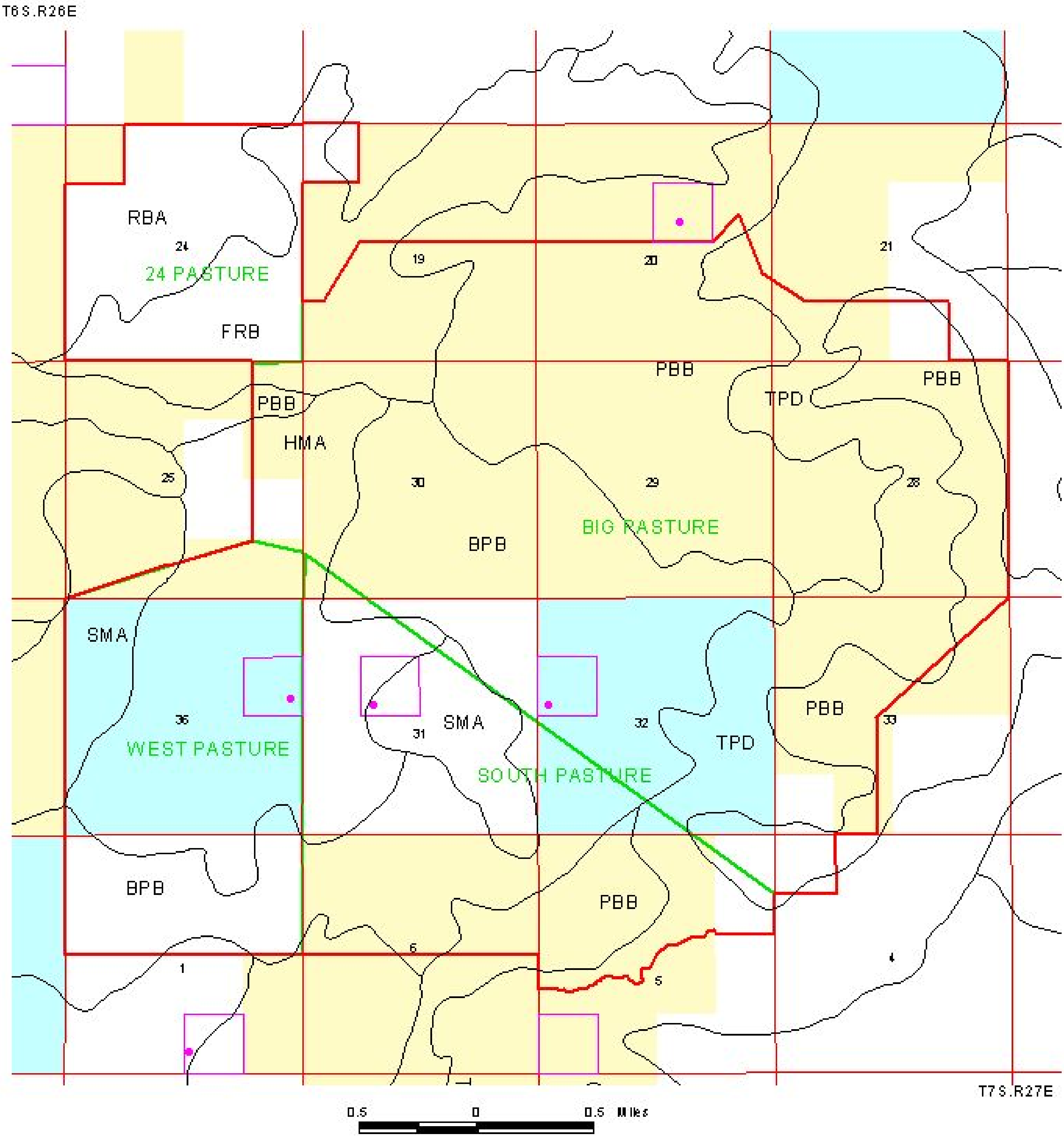
GIS Intern on July 8, 2003.

Rangeland Health Assessment
Soil Mapping Units

Allotment 65019



Public

Study Plots

State

Private

Study Locations

Pasture Boundary

Soil Mapping Units

Allotment Boundary

Produced by the Roswell Field Office GIS Intern on July 8, 2003.